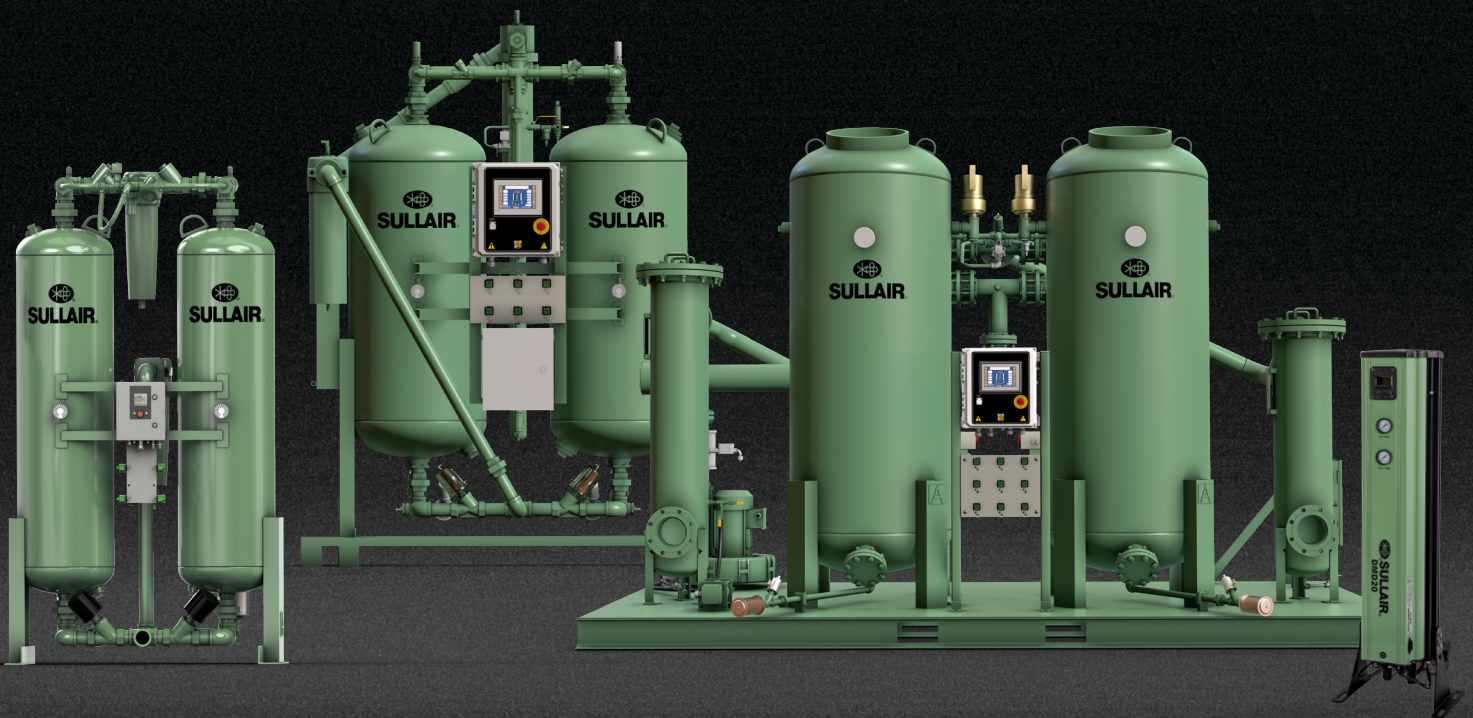




# DESICCANT COMPRESSED AIR DRYERS

Externally Heated; Heated Blower Purge; Heatless; Modular

*3 – 7500 cfm*



# CLEAN, DRY COMPRESSED AIR IS ESSENTIAL

Sullair Desiccant Compressed Air Dryers are engineered for the most critical applications — providing dry compressed air where you need it most.

Compressed air contamination such as water, dust, bacteria, microorganisms and industrial acids can ruin product and foul processes. Removing it is essential to help protect your downstream equipment and reduce maintenance cost and downtime.

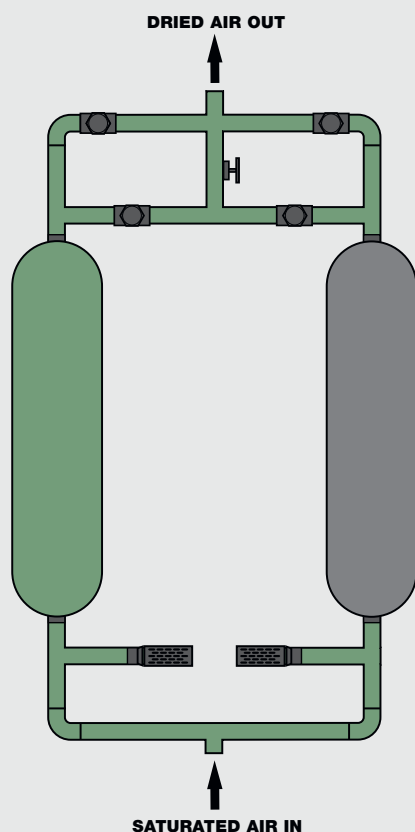
- Ideal for applications requiring extremely low dew point  
-40°F/-40°C

## REGENERATION METHODS

### Heatless

*Uses an average of 15% of process air during the regeneration process*

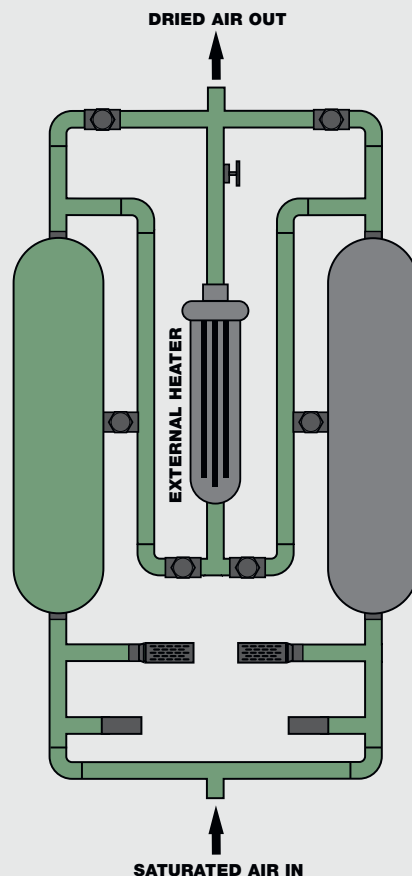
Heatless dryers divert a small amount of dried process air from the drying vessel to regenerate the opposite vessel.



### Externally Heated

*Uses an average of 8% of process air during the regeneration process*

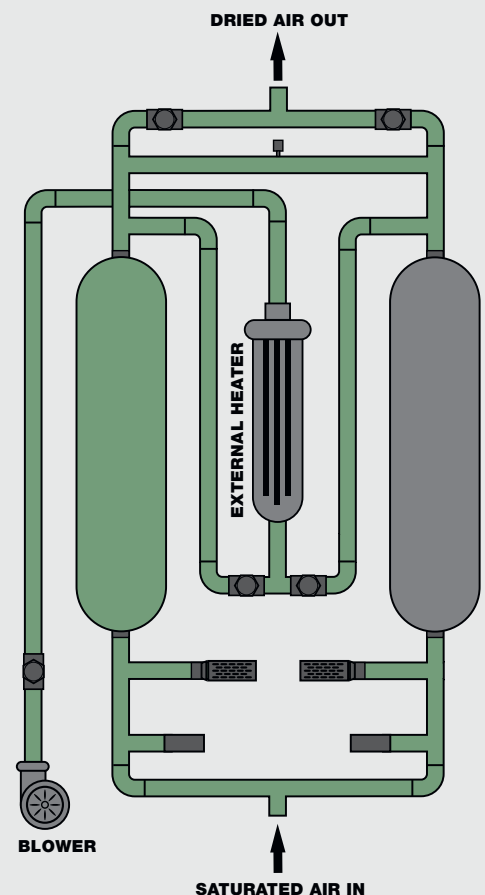
Heated dryers use an additional heat source—reducing process air loss during the regeneration process. The additional heat source helps enhance the drying and regeneration process while saving energy.



### Heated Blower Purge

*Uses an average of 2% of process air during the regeneration process*

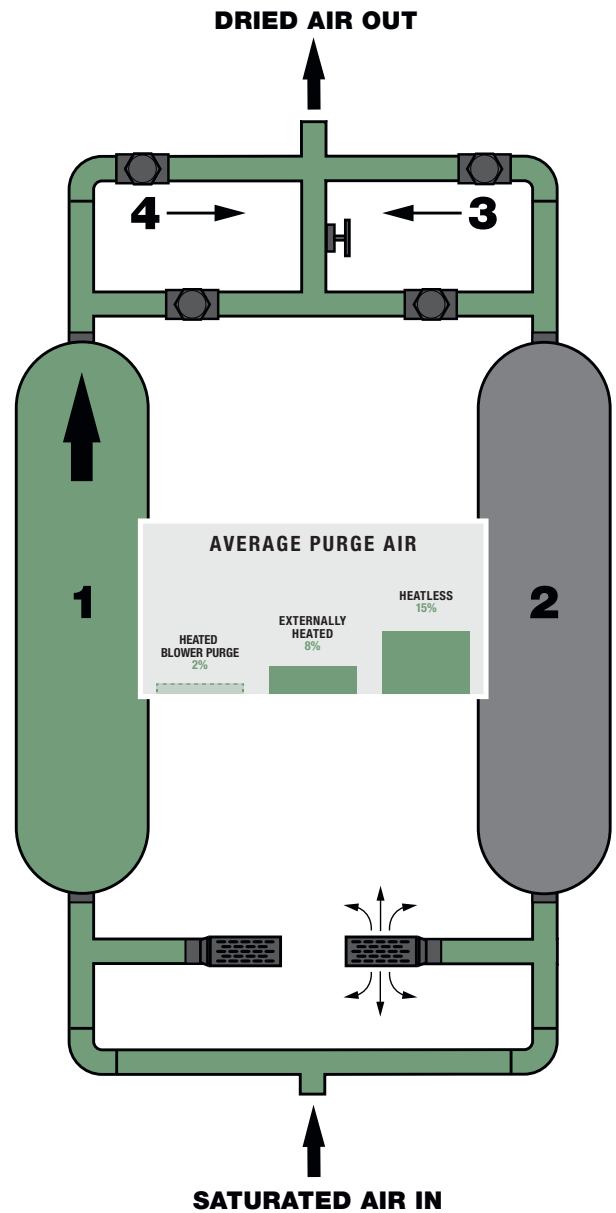
Heated Blower Purge dryers use a combination of an additional heat source, air from a blower and little to no process air. The three-tiered method helps optimize drying and regeneration processes while reducing energy consumption — maximizing energy cost savings over the lifecycle.



## HOW DESICCANT DRYING WORKS

Sullair Desiccant Dryers have a dual tower design in which both vessels are filled with desiccant material.

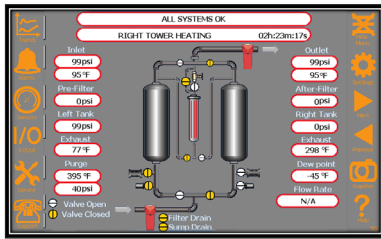
1. Saturated, compressed air passes through vessel one where the desiccant adsorbs moisture. This helps lower the dewpoint to expel dry compressed air
2. Once vessel one reaches a set level of saturation, the air switches to pass through vessel two
3. While the air is passing through vessel two, vessel one dries and regenerates the desiccant material
4. When vessel two reaches a set level of saturation, the air switches to pass through vessel one



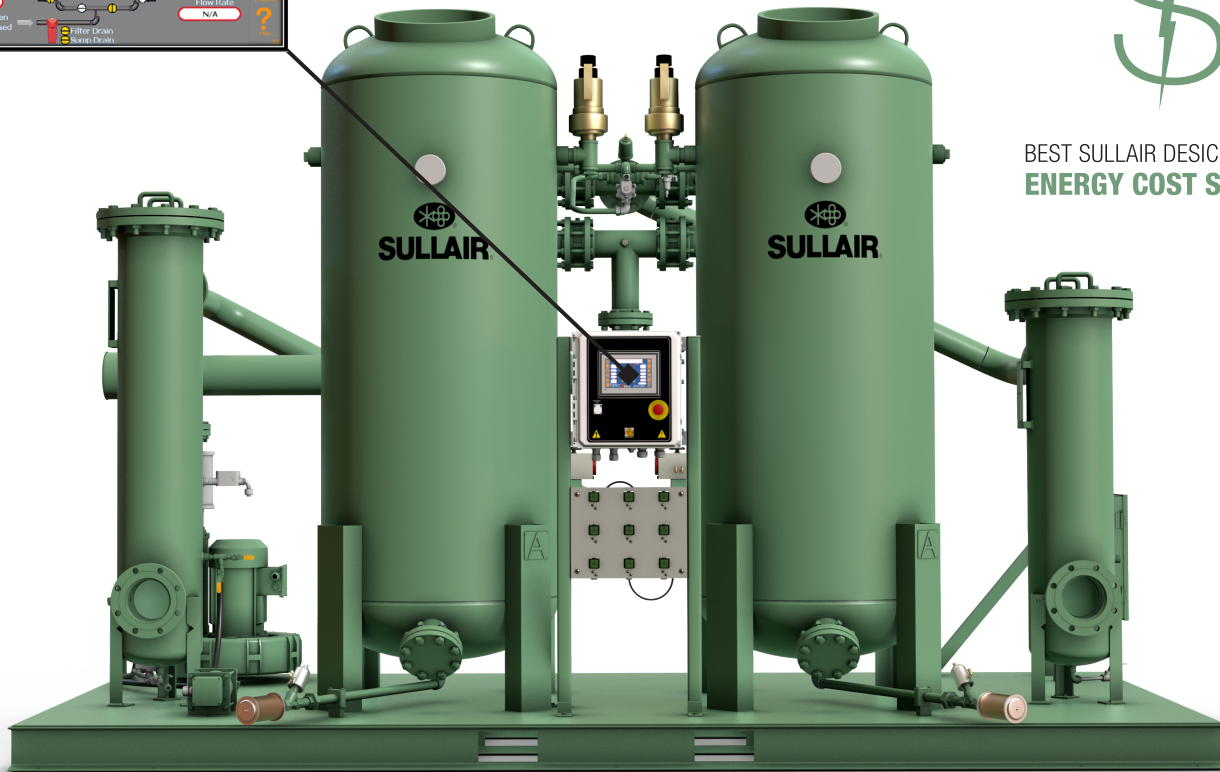
## SULLAIR DESICCANT DRYERS

- SAV Series — Heated Blower Purge — 500 to 7500 cfm
- SAH Series — Externally Heated — 500 to 3000 cfm
- SA Series — Heatless — 55 to 3000 cfm
- DMD Series — Modular — 3 to 240 cfm





BEST SULLAIR DESICCANT FOR  
ENERGY COST SAVINGS



## SAV SERIES

### DESICCANT HEATED BLOWER PURGE COMPRESSED AIR DRYER 500 – 7500 cfm

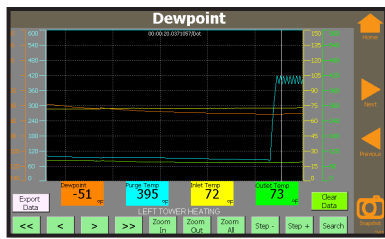
- Blower regeneration technology with heat source helps save energy and optimize drying and regeneration processes
- Allen-Bradley® PLC Color Touch Screen Controller
  - Sullair Desiccant Dryer (SDD) Energy Management System matches supply to demand—Up to 80% in energy savings
  - Heatless backup for more uptime
  - Dewpoint control
  - Supplemental cooldown
  - Alarm systems designed to help reduce downtime with easy detection and diagnostics
  - Remote monitoring of operation status, data trends and alarms via email or text alerts
- -40°F/-40°C dew point performance
- Desiccant designed for higher packing density increases efficiency and reliable operation
- High-Performance switching valves help provide worry-free performance tailored to your application
- Engineered to stand up to harsh environments
  - Rugged frame with forklift pockets for easy transit and installation
- NEMA 12
- Single pre-filter and after-filter mounted
- ASME/CRN vessels
- ETL listed (US/CSA)

#### Standard Options

- 3-valve bypass
- 575V/3Ph/60Hz power
- NEMA 4
- Stainless steel control line tubing
- Tank insulation
- Outdoor low ambient kit
- Timer drain on pre-filter

#### Additional Options Available on Request

- Customized filtration
- Instrumentation
- ASME B31.3 piping
- Pneumatic controls
- High pressure - 200 psi & 250 psi



BRIDGE BETWEEN  
ECONOMICAL

&

ENERGY  
SAVINGS

## SAH SERIES

### DESICCANT EXTERNALLY HEATED COMPRESSED AIR DRYER 500 – 3000 cfm

- External heat source helps save energy
- Allen-Bradley® PLC Color Touch Screen Controller
  - Sullair Desiccant Dryer (SDD) Energy Management System matches supply to demand—Up to 80% in energy savings
  - Heatless backup for more uptime
  - Dewpoint control
  - Supplemental cooldown
  - Alarm systems designed to help reduce downtime with easy detection and diagnostics
  - Remote monitoring of operation status, data trends and alarms via email or text alerts
- -40°F/-40°C dew point performance
- Desiccant designed for higher packing density increases efficiency and reliable operation
- High-Performance switching valves help provide worry-free performance tailored to your application
- Engineered to stand up to harsh environments
  - Rugged frame with forklift pockets for easy transit and installation
- NEMA 12
- Single pre-filter and after-filter mounted
- ASME/CRN vessels
- ETL listed (US/CSA)

#### Standard Options

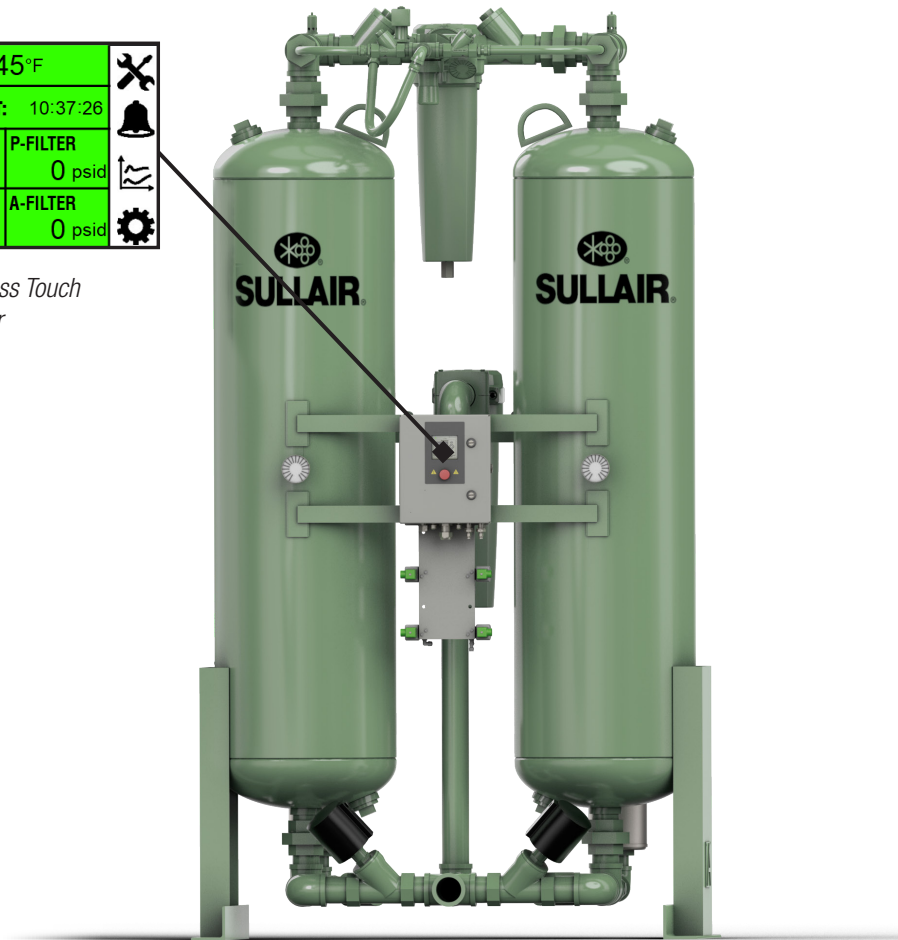
- 3-valve bypass
- 575V/3Ph/60Hz power
- NEMA 4
- Stainless steel control line tubing
- Tank insulation
- Outdoor low ambient kit
- Timer drain on pre-filter

#### Additional Options Available on Request

- Customized filtration
- Instrumentation
- ASME B31.3 piping
- Pneumatic controls
- High pressure - 200 psi & 250 psi

<b>DEWPOINT:</b> -45°F		✂
<b>EXTENDED DRYING LEFT:</b> 10:37:26		
<b>INLET:</b> 80°F	100 <sub>psi</sub>	P-FILTER
<b>OUTLET:</b>	100 <sub>psi</sub>	
<b>L-TOWER</b>	100 <sub>psi</sub>	A-FILTER
<b>R-TOWER</b>	100 <sub>psi</sub>	

Advanced Heatless Touch  
Screen Controller



## SA SERIES

### DESICCANT HEATLESS COMPRESSED AIR DRYER 55 – 3000 cfm

- Allen-Bradley® PLC Basic Controller
  - Selectable cycle setting
  - Manual stepping
- -40°F/-40°C dew point performance
- Desiccant designed for higher packing density increases efficiency and reliable operation
- High-Performance switching valves help provide worry-free performance tailored to your application
- Engineered to stand up to harsh environments
- NEMA 12
- Single pre-filter and after-filter mounted
- ASME/CRN vessels
- ETL listed (UL/CSA standards)

#### Standard Options

- Enhanced controller options
  - Basic Plus
    - Sullair Desiccant Dryer (SDD) Energy Management System matches supply to demand—Up to 80% in energy savings
    - Select alarms
  - Heatless Advanced includes Basic Plus features plus:
    - Touch Screen
    - Additional alarms
    - Remote monitoring of operation status, data trends and alarms via email or text alerts
- 3-valve bypass
- NEMA 4X stainless steel
- Stainless steel control line tubing
- Outdoor low-ambient kit
- Timer drain on pre-filter
- High Pressure 200 psi

#### Additional Options Available on Request

- Customized filtration
- NEMA 7
- Additional instrumentation
- ASME B31.3 Piping
- Pneumatic controls
- High Pressure 250 psi



## DMD SERIES

### DESICCANT MODULAR COMPRESSED AIR DRYER 3 – 240 cfm

- Compact design
- Inlet and purge manifold design for low pressure drop
- Mini PLC monitor
- Completely automatic
- Point-of-use placement

#### Options

- Pre- and after-filter (shipped loose)
- Mounted filters with 3-valve bypass
- Visual moisture indicator
- Energy efficient demand cycle control
- Dew point monitor
- -4°F (-20°C) or -100°F (-73°C) pressure dew point

# TECHNICAL SPECIFICATIONS

## SAV SERIES

DESICCANT HEATED BLOWER PURGE COMPRESSED AIR DRYERS

**FREQUENCY: 60 Hz & 50 Hz**

Model #	Flow Rate (cfm)	Connection Size (FLG)	Height (in)	Width (in)	Depth (in)	Total Fill Weight (lbs)
SAV500	500	2" NPT	85	55	49	2840
SAV600	600	2" NPT	89	57	52	3420
SAV800	800	2" NPT	96	68	60	4490
SAV1000	1000	3"	103	78	60	5700
SAV1200	1200	3"	115	96	66	6300
SAV1500	1500	3"	114	114	66	7165
SAV2000	2000	4"	113	120	72	9850
SAV2600	2600	4"	111	144	84	12,210
SAV3000	3000	6"	111	144	84	12,650
SAV4000	4000	6"	113	168	96	18,910
SAV5000	5000	6"	112	180	102	21,590
SAV6000	6000	6"	112	186	102	24,890
SAV7500	7500	8"	137	204	106	29,490

### CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE

Operating Pressure <i>psi</i>	80	85	90	95	100	105	110	115	120	125	130
Correction Factor	0.83	0.87	0.91	0.96	1.00	1.04	1.09	1.13	1.17	1.22	1.26

### CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES

Inlet Air Temperature <i>°F</i>	80	85	90	95	100	105	110	115	120
Correction Factor	1.17	1.17	1.17	1.15	1.00	0.87	0.76	0.66	0.58

**Air flow capacity = Operating pressure x Inlet air temperature**

- Standard outlet pressure dew point *°F*** -40
- Standard operating voltage** 460V/3PH
- ETL Listed (UL/CSA standards)**
- NEMA 12**
- ASME/CRN approved vessels**
- Min/max inlet air temperature *°F*** 50/120
- Min/max operating pressure *psi*** 80/135, 80/150 (2000-7500 cfm)
- Average purge air\*** 2%

\* Purge air percentage is the amount of dried compressed air diverted from the active drying vessel to the other vessel during the regeneration process. The diverted air does not return to the system. The lower the average purge percentage, the higher system efficiency is.



# TECHNICAL SPECIFICATIONS

## SAH SERIES

DESICCANT EXTERNALLY HEATED COMPRESSED AIR DRYERS

FREQUENCY: 60 Hz & 50 Hz

Model #	Flow Rate (cfm)	Connection Size (NPT)	Height (in)	Width (in)	Depth (in)	Total Fill Weight (lbs)
SAH500	500	2"	86	55	51	2060
SAH600	600	2"	93	57	51	2350
SAH800	800	2"	92	68	56	3035
SAH1000	1000	3"	103	78	63	4195
SAH1200	1200	3"	115	96	66	5215
SAH1500	1500	3"	115	114	66	7765
SAH2000	2000	4"	113	120	72	8565
SAH2600	2600	4"	111	144	78	11,562
SAH3000	3000	6"	111	144	78	12,002

### CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE

Operating Pressure <i>psi</i>	80	85	90	95	100	105	110	115	120	125	130
Correction Factor	0.83	0.87	0.91	0.96	1.00	1.04	1.09	1.13	1.17	1.22	1.26

### CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES

Inlet Air Temperature <i>°F</i>	90	95	100	105	110	115	120
Correction Factor	1.12	1.10	1.06	1.00	0.93	0.86	0.80

Air flow capacity = Operating pressure x Inlet air temperature

- Standard outlet pressure dew point *°F* -40
- Standard operating voltage 480V/3PH
- ETL Listed (UL/CSA standards)
- NEMA 12
- ASME/CRN approved vessels
- Min/max inlet air temperature *°F* 50/120
- Min/max operating pressure *psi* 80/135, 80/150 (2000-3000 cfm)
- Average purge air\* 8%

\* Purge air percentage is the amount of dried compressed air diverted from the active drying vessel to the other vessel during the regeneration process. The diverted air does not return to the system. The lower the average purge percentage, the higher system efficiency is.

# TECHNICAL SPECIFICATIONS

## SA SERIES

DESICCANT HEATLESS COMPRESSED AIR DRYERS

**FREQUENCY: 60 Hz & 50 Hz**

Model #	Flow Rate (cfm)	Connection Size (NPT)	Height (in)	Width (in)	Depth (in)	Weight (lbs)
SA55	55	¾"	79	24	27	400
SA100	100	1"	86	52	36	468
SA130	130	1"	86	52	36	496
SA200	200	1½"	86	52	36	692
SA250	250	1½"	85	52	36	776
SA300	300	1½"	85	52	36	796
SA400	400	2"	88	52	36	1626
SA500	500	2"	88	52	36	1735
SA600	600	2"	89	56	60	1740
SA800	800	2"	89	56	60	2120
SA1000	1000	3"	98	65	61	3676
SA1200	1200	3"	110	65	61	4605
SA1500	1500	4" FLG	117	72	77	4985
SA2000	2000	4" FLG	113	118	59	5206
SA2600	2600	4" FLG	111	138	67	7600
SA3000	3000	4" FLG	111	138	67	8300

### CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE

Operating Pressure <i>psi</i>	80	90	100	110	120	130	140
Correction Factor	0.83	0.91	1.00	1.09	1.17	1.26	1.29

### CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES

Inlet Air Temperature <i>°F</i>	90	95	100	105	110	115	120
Correction Factor	1.17	1.15	1.00	0.87	0.76	0.66	0.58

**Air flow capacity = Operating pressure x Inlet air temperature**

- Standard outlet pressure dew point *°F*** -40
- Standard operating voltage** 120V/1PH
- ETL Listed (UL/CSA standards)**
- NEMA 12**
- ASME/CRN approved vessels**
- Min/max inlet air temperature *°F*** 50/120
- Min/max operating pressure *psi*** 80/150
- Average purge air\*** 15%

\* Purge air percentage is the amount of dried compressed air diverted from the active drying vessel to the other vessel during the regeneration process. The diverted air does not return to the system. The lower the average purge percentage, the higher system efficiency is.

# TECHNICAL SPECIFICATIONS

## DMD SERIES

### DESICCANT MODULAR COMPRESSED AIR DRYERS

#### FREQUENCY: 60 Hz & 50 Hz

Model #	Flow Rate (cfm)	Connection Size (NPT)	Height (in)	Width (in)	Depth (in)	Weight (lbs)
DMD-3	3	½"	22	13	10	32
DMD-5	5	½"	25	13	10	36
DMD-10	10	½"	36	13	10	52
DMD-15	15	½"	32	15	10	57
DMD-20	20	½"	44	15	10	79
DMD-25	25	½"	50	15	10	90
DMD-30	30	½"	59	15	10	107
DMD-40	40	1½"	49	16	17	156
DMD-50	50	1½"	55	16	17	172
DMD-60	60	1½"	69	16	17	202
DMD-75	75	1½"	51	16	23	257
DMD-100	100	1½"	57	16	23	286
DMD-120	120	1½"	69	16	23	334
DMD-180	180	1½"	59	16	28	407
DMD-240	240	1½"	59	16	33	519

#### CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE

Operating Pressure <i>psi</i>	50	60	70	80	90	100	110	120	130	140	150	175	200	225	250
Correction Factor	0.56	0.65	0.74	0.83	0.91	1.00	1.04	1.08	1.12	1.16	1.2	1.29	1.37	1.45	1.52

#### CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES

Inlet Air Temperature <i>°F</i>	70	80	90	100	105	110	115	120
Correction Factor	1.12	1.1	1.06	1	0.93	0.86	0.8	0.75

**Air flow capacity = Operating pressure x Inlet air temperature**

<b>Standard outlet pressure dew point <i>°F</i></b>	-40
<b>Standard operating voltage</b>	115–230V/1PH
<b>Pre- and post-filtration recommended</b>	
<b>Pre-filtration grade <i>µm</i></b>	.01
<b>Post-filtration grade <i>µm</i></b>	1
<b>ASME compliant</b>	
<b>CRN approved</b>	
<b>cULus control panel</b>	
<b>Max inlet air temperature <i>°F</i></b>	122
<b>Min/max ambient air temperature <i>°F</i></b>	34/122
<b>Min/max operating pressure <i>psi</i></b>	58/232
<b>Average purge air*</b>	15%

\* Purge air percentage is the amount of dried compressed air diverted from the active drying vessel to the other vessel during the regeneration process. The diverted air does not return to the system. The lower the average purge percentage, the higher system efficiency is.

FOR MORE INFORMATION, CONTACT YOUR LOCAL AUTHORIZED SULLAIR DISTRIBUTOR.

